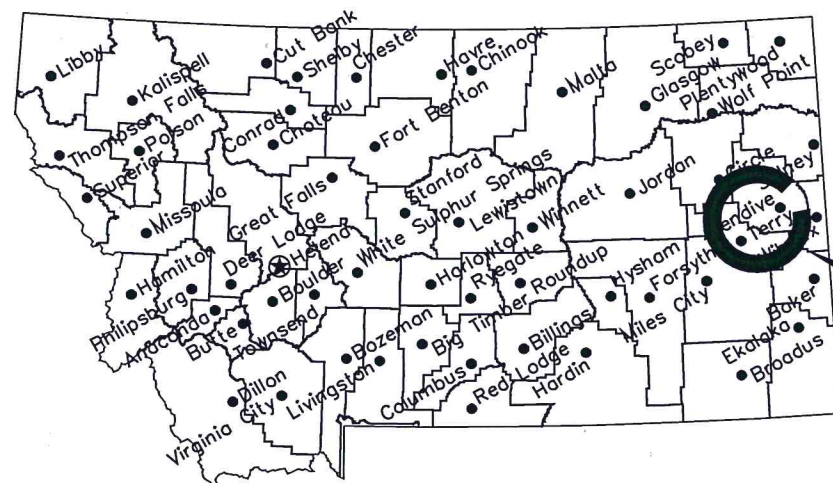


MONTANA FISH, WILDLIFE & PARKS

FALLON BRIDGE FISHING ACCESS SITE BOAT RAMP IMPROVEMENTS

near Fallon, Prairie County, Montana

FWP # 7193723

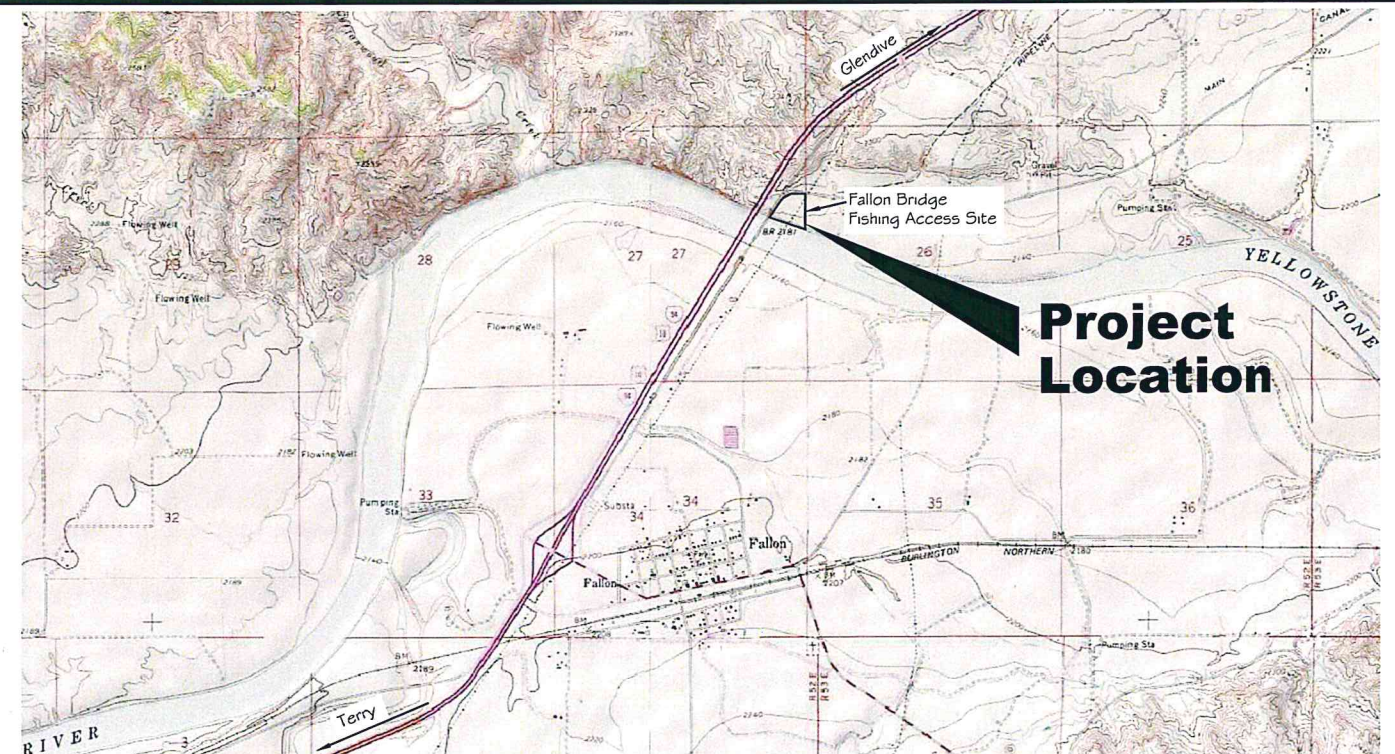


Location Map

No Scale

Project Location

North



Vicinity Map

No Scale

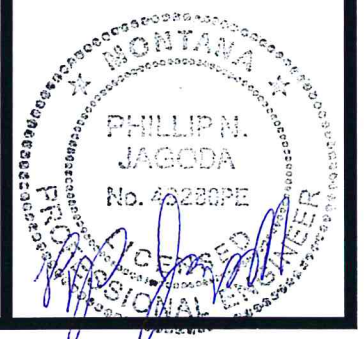
MONTANA FISH, WILDLIFE AND PARKS
DESIGN AND CONSTRUCTION

MAILING ADDRESS: PO BOX 200701
HELENA, MT 59620-0701
TEL 406.841.4000
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fwp.mt.gov/Doing Business/Design&Construction

PHYSICAL ADDRESS: 1522 9th AVENUE
HELENA, MT 59601

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| 2 | SITE PLAN |
| 3 | PLAN & PROFILE |
| 4 | CAST IN PLACE BOAT RAMP DETAILS |
| 5 | PUSH IN SLAB CONCRETE BOAT RAMP DETAILS |



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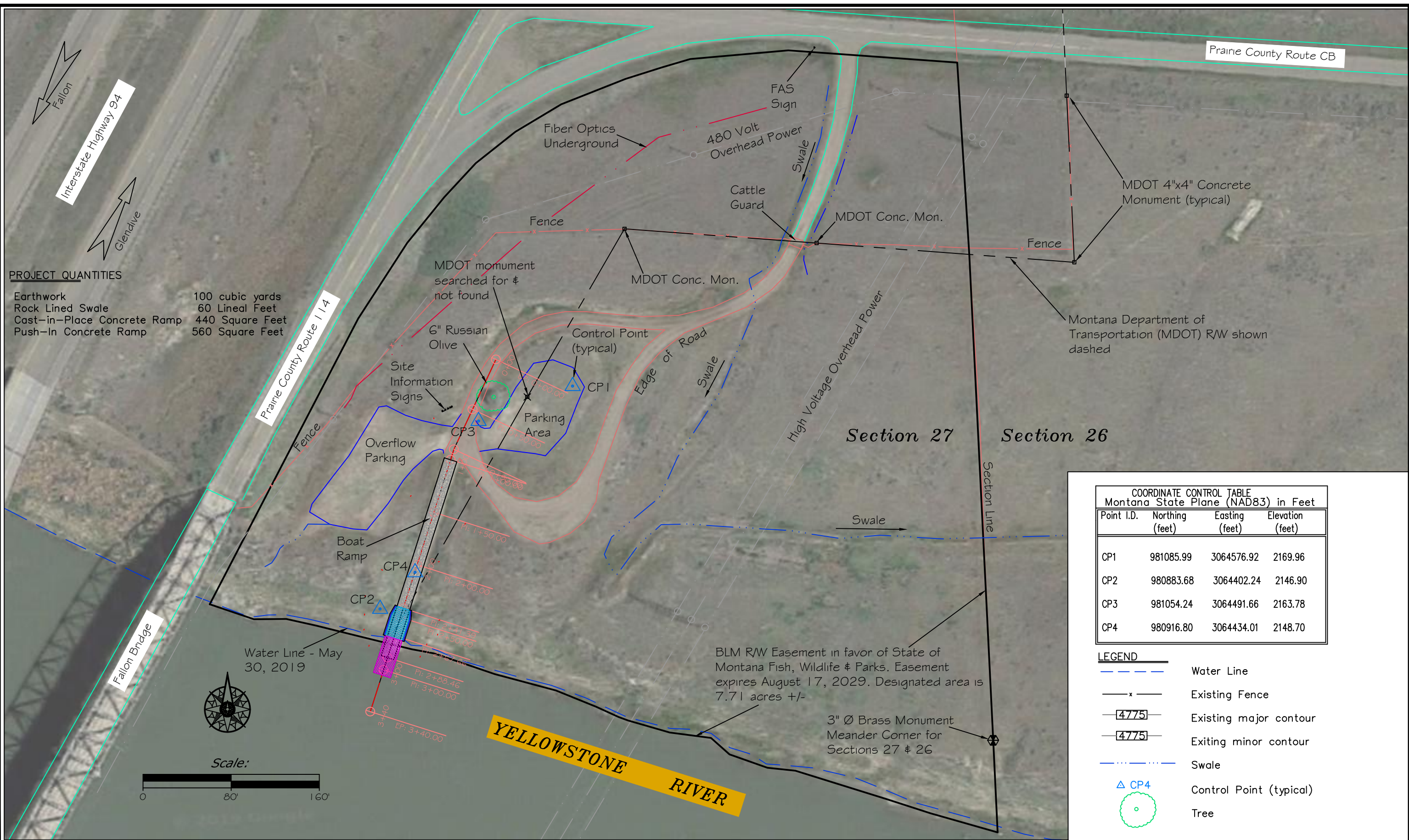
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Cover Sheet
Fallon Bridge FAS Boat Ramp Improvements



SHEET: 1 of 5



PROJECT QUANTITIES

Earthwork	100 cubic yards
Rock Lined Swale	60 Lined Feet
Cast-in-Place Concrete Ramp	440 Square Feet
Push-In Concrete Ramp	560 Square Feet

COORDINATE CONTROL TABLE Montana State Plane (NAD83) in Feet			
Point I.D.	Northing (feet)	Easting (feet)	Elevation (feet)
CP1	981085.99	3064576.92	2169.96
CP2	980883.68	3064402.24	2146.90
CP3	981054.24	3064491.66	2163.78
CP4	980916.80	3064434.01	2148.70

LEGEND	
	Water Line
	Existing Fence
	Existing major contour
	Existing minor contour
	Swale
	Control Point (typical)
	Tree

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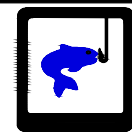


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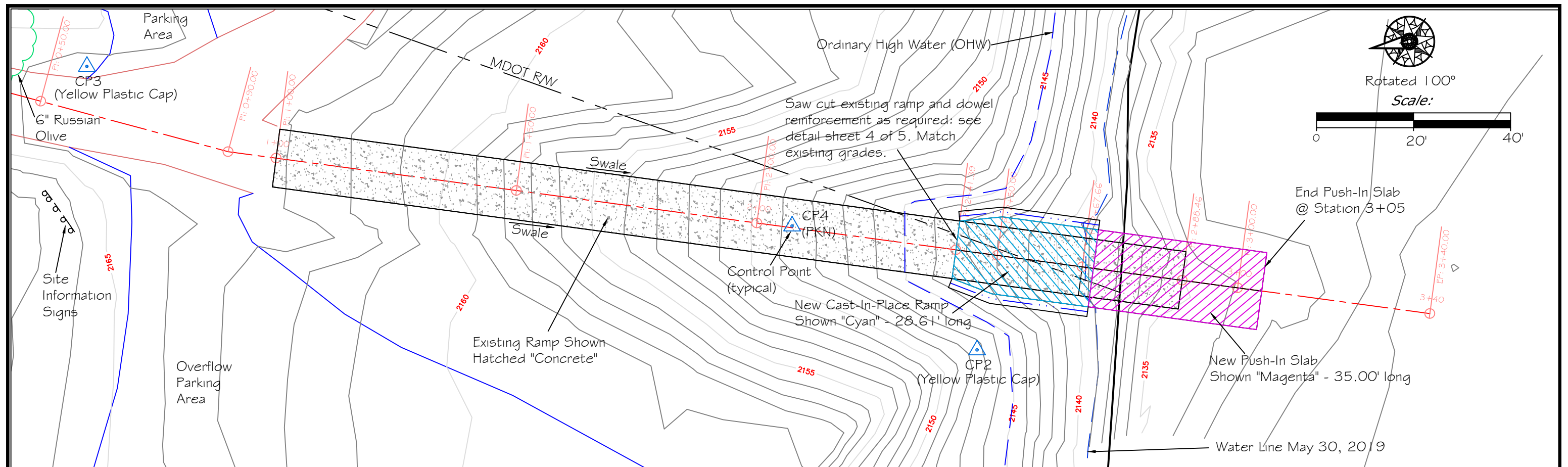
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Site Plan

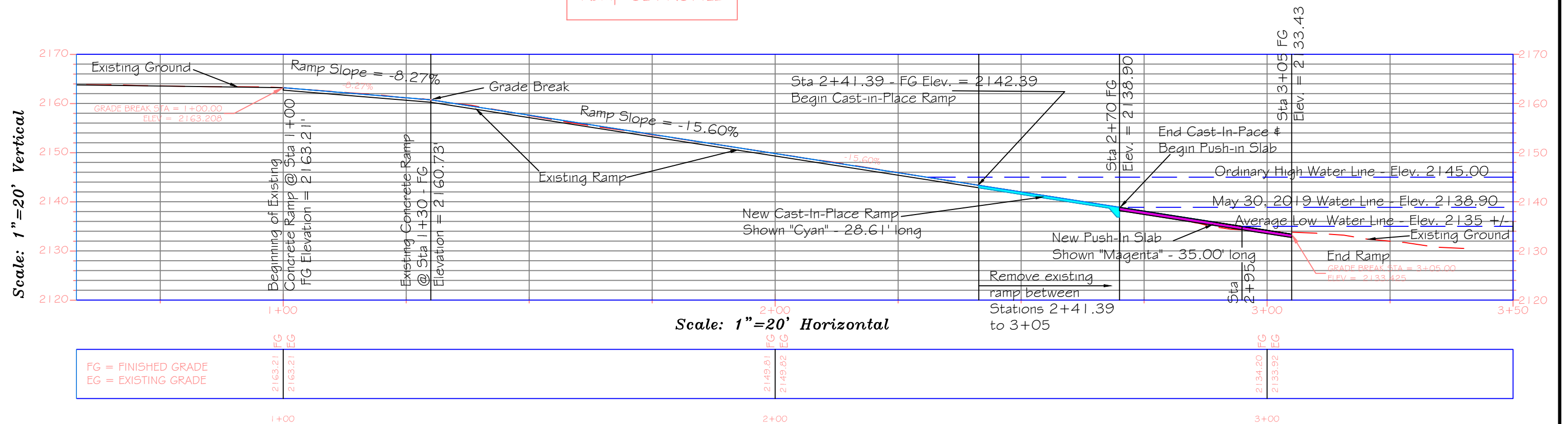
Fallon Bridge FAS Ramp Improvements



SHEET:
2 of 5



Ramp CL PROFILE



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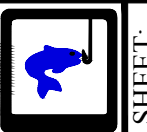
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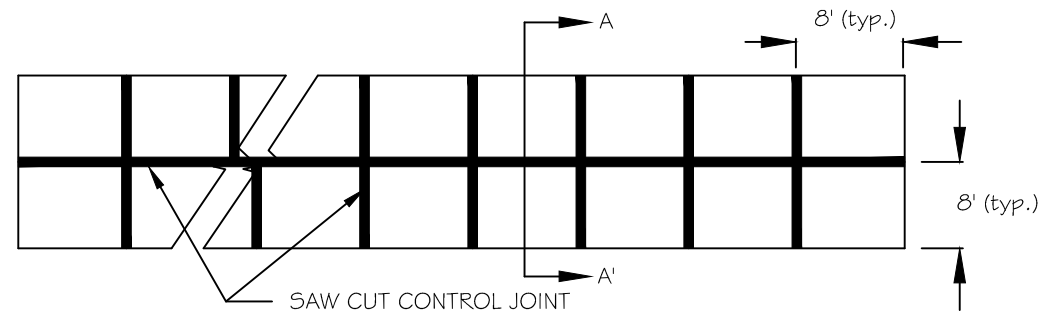
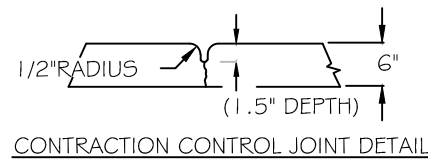
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Ramp Plan & Profile
Fallon Bridge FAS Ramp Improvements

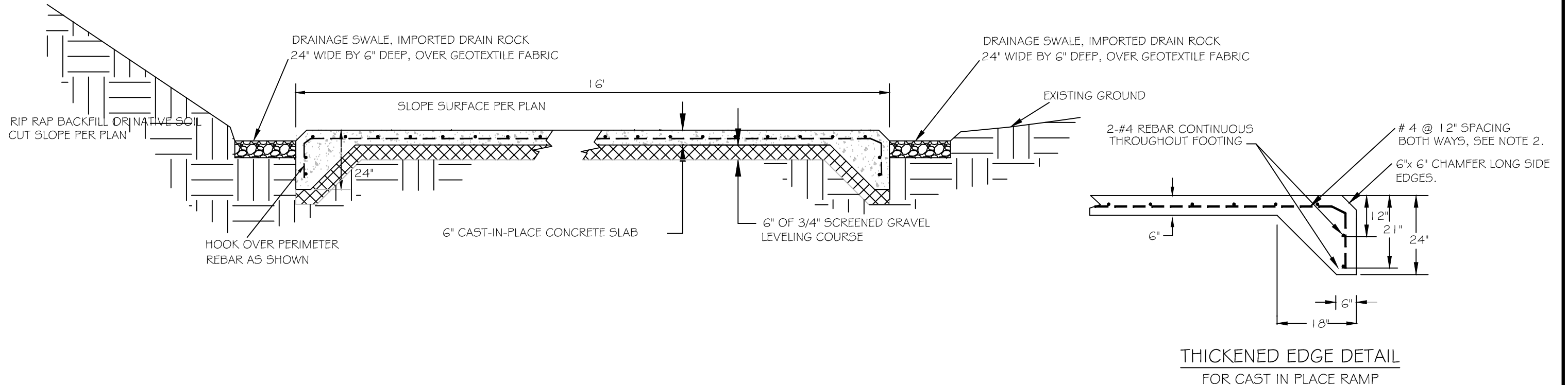
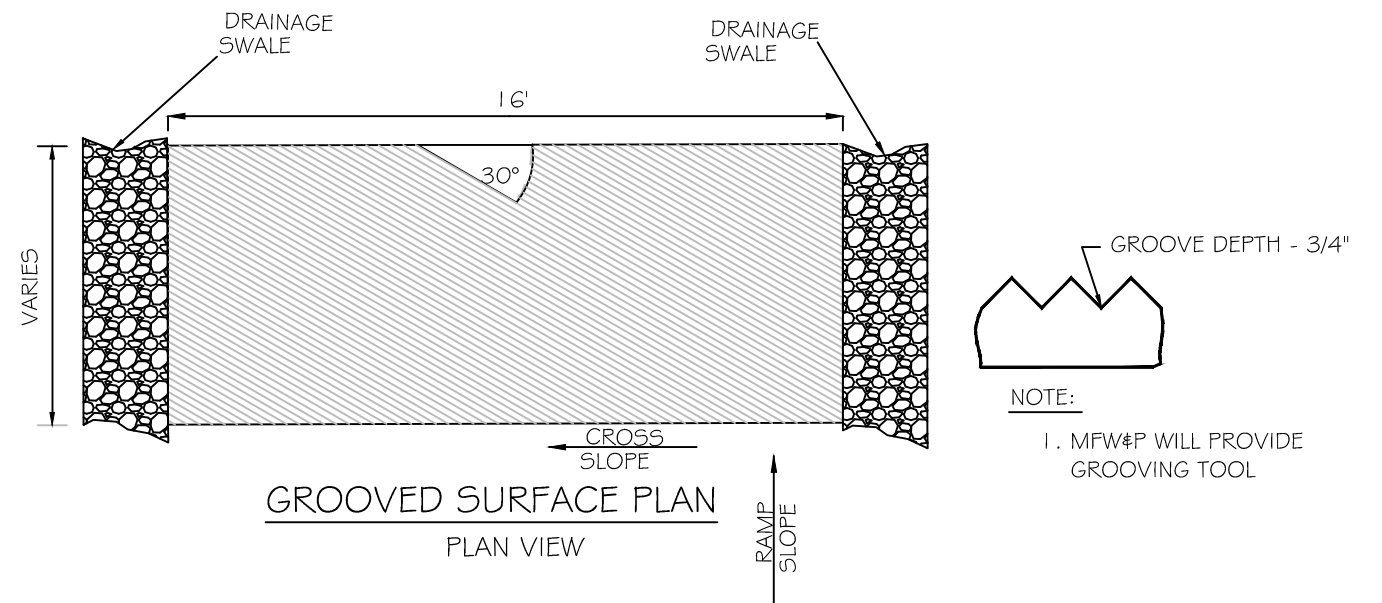


SHEET: 3 of 5



- NOTE:
1. CONCRETE FOR NEW RAMP IS A 3/4" MINUS; 6-1/2 SACK MIX WITH A MIN 28 DAY STRENGTH OF 4000 PSI, REINFORCED WITH # 4 BARS @ 12" SPACING BOTH DIRECTIONS.
 2. SCREED CONCRETE FOLLOWED BY GROOVING THE SURFACE.
 3. SAW CUT CONTRACTION JOINTS AFTER RAMP IS GROOVED.

SLAB CONTROL JOINT DETAIL
PLAN VIEW



- NOTES.
1. CONTINUE THICKENED EDGE FOOTING AROUND ENTIRE PERIMETER OF CAST-IN-PLACE CONCRETE.
 2. EXTEND AND EXPOXY #4 BARS MIN 20" (12" O.C.) IN EXISTING CONCRETE CONNECTIONS. PROVIDE EXPANSION JOINT MATERIAL ALONG COLD JOINT CONNECTIONS.
 3. NO CHAMFER ALONG SIDEWALK/BULKHEAD/EXISTING CONCRETE CONNECTIONS.
 4. PROVIDE 2 1/2" CLEAR COVER FOR ALL REBAR REINFORCEMENT.

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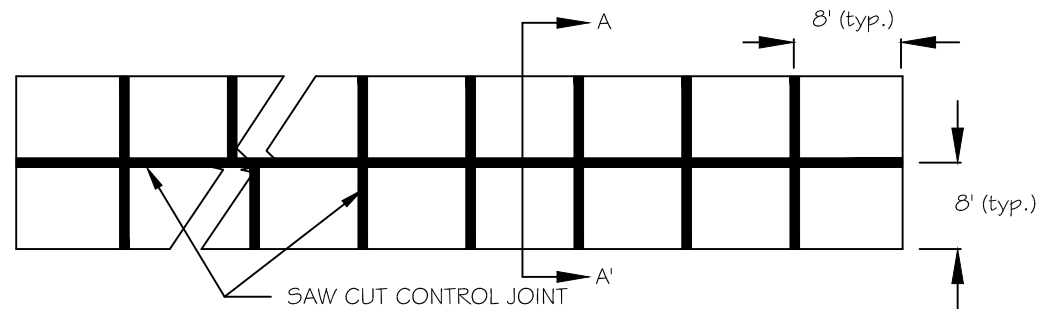
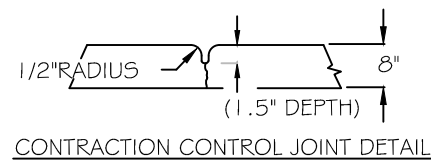
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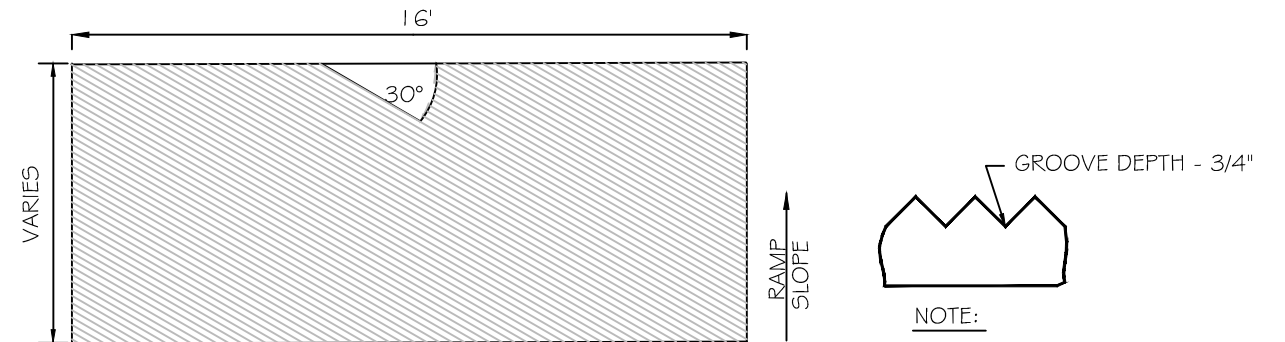
Cast In Place Concrete Boat Ramp Details
Fallon Bridge FAS Ramp Improvements



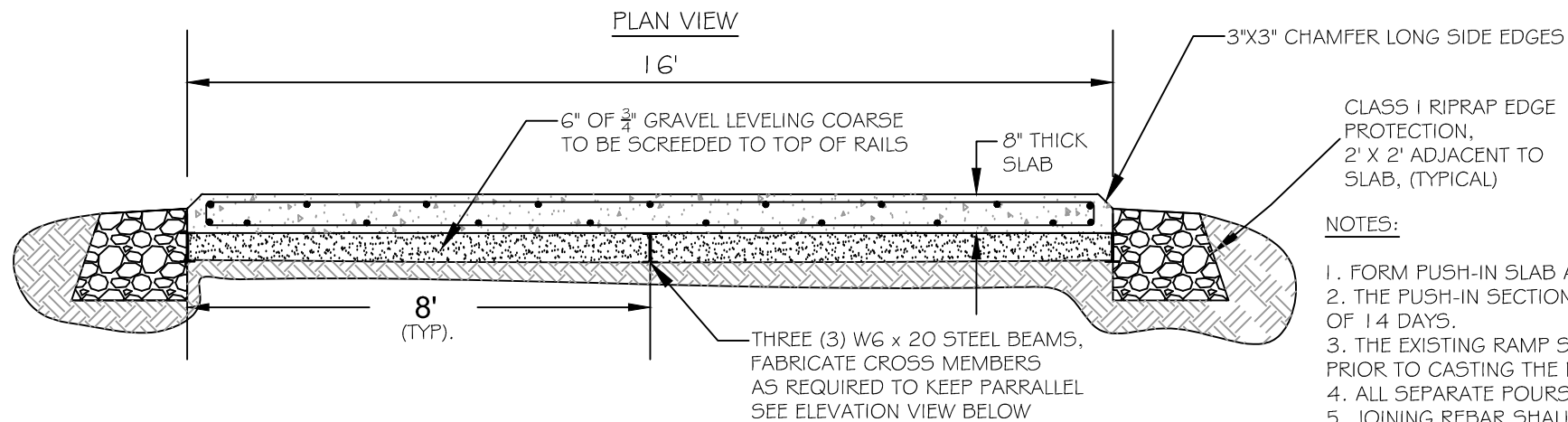
SHEET
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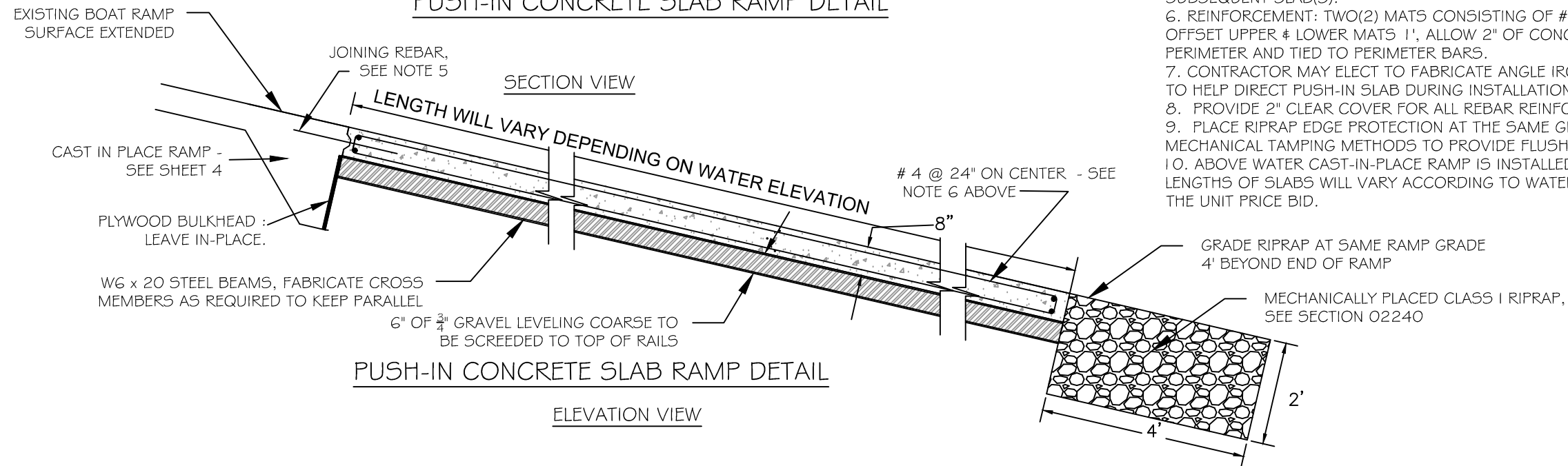
- NOTE:
1. CONCRETE FOR NEW RAMP IS A 3/4" MINUS; 6-1/2 BAG MIX WITH A MIN 28 DAY STRENGTH OF 4000 PSI.
 2. SCREED CONCRETE FOLLOWED BY GROOVING THE SURFACE.
 3. SAW CUT CONTRACTION JOINTS AFTER RAMP IS GROOVED.



PLAN VIEW



- NOTES:
1. FORM PUSH-IN SLAB AT EXISTING BOAT GRADE.
 2. THE PUSH-IN SECTION SHALL BE CAST ON THE EXISTING RAMP AND ALLOWED TO CURE FOR MINIMUM OF 14 DAYS.
 3. THE EXISTING RAMP SHALL BE COVERED WITH A 1" LAYER OF SAND AND A POLYETHYLENE BARRIER PRIOR TO CASTING THE PUSH-IN SECTION.
 4. ALL SEPARATE POURS WILL REQUIRE REBAR PLACEMENT AS DESCRIBED IN NOTE 5.
 5. JOINING REBAR SHALL BE EPOXIED INTO FIRST SLAB AND EXTENDED A MINIMUM OF 20" INTO SUBSEQUENT SLAB(S).
 6. REINFORCEMENT: TWO(2) MATS CONSISTING OF #4 GRADE 40 REBAR 2' ON CENTER EACH WAY, OFFSET UPPER & LOWER MATS 1', ALLOW 2" OF CONCRETE COVER, EACH BAR SHALL HAVE A 4" HOOK AT PERIMETER AND TIED TO PERIMETER BARS.
 7. CONTRACTOR MAY ELECT TO FABRICATE ANGLE IRON ALONG EDGE OF OUTER STEEL SUPPORT BEAMS TO HELP DIRECT PUSH-IN SLAB DURING INSTALLATION.
 8. PROVIDE 2" CLEAR COVER FOR ALL REBAR REINFORCEMENT.
 9. PLACE RIPRAP EDGE PROTECTION AT THE SAME GRADE OF PUSH-IN SLAB. KEY IN RIPRAP BY MECHANICAL TAMPING METHODS TO PROVIDE FLUSH SURFACE.
 10. ABOVE WATER CAST-IN-PLACE RAMP IS INSTALLED AFTER BELOW WATER PUSH-IN SECTION IS PLACED. LENGTHS OF SLABS WILL VARY ACCORDING TO WATER LEVELS AND COMPENSATION WILL BE BASED ON THE UNIT PRICE BID.



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Push In Slab Concrete Boat Ramp Details
 Fallon Bridge FAS Ramp Improvements



SHEET: 5 of 5